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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,870	10/15/2003	Thomas J. Laginess	IN-5698	7421
26922	7590	08/23/2007		
BASF CORPORATION Patent Department 1609 BIDDLE AVENUE MAIN BUILDING WYANDOTTE, MI 48192			EXAMINER BERMAN, SUSAN W	
			ART UNIT 1711	PAPER NUMBER
			NOTIFICATION DATE 08/23/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/686,870

Applicant(s)

LAGINESS ET AL.

Examiner

/Susan W. Berman/

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5-29-07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Remarks

Applicant's arguments filed 05/29/2007 have been fully considered.

With respect to amended claim 11, Applicant argues that Fenn et al teach a process that requires a wiping step to provide a tack free surface using higher amounts of photoinitiator. This argument is not persuasive. The reason is that what Fenn et al teach is that any sticky surface can preferably be removed by wiping with a volatile organic solvent, which teaching applies to the presence of uncured composition only. The description of the process in Fenn et al column 2, line 53, to column 3, line 12, further indicates that the wiping step is not an essential process step by not mentioning wiping. The teaching of Fenn et al indicates that when no uncured surface composition is present a wiping step would not be needed to remove any uncured composition. Additionally, applicant teaches that a wiping step can be used in the instantly disclosed process in the instant specification (page 7). It is noted that the Fenn et al use, at least, different photoinitiators, different species of ethylenically unsaturated compounds and different light exposure times and conditions in the examples than used in applicant's examples. Thus, it is not clear that the different amount of photoinitiator is the critical factor resulting in different results. There are no comparative examples representing Fenn et al in comparison with the instantly claimed compositions and process. Furthermore, the examples in the instant specification do not represent the composition instantly claimed since there is no mono-ethylenically unsaturated compound present and there is a mixture of higher-functional acrylates employed. Fenn et al do not employ compounds having three, four or six acrylate groups per compound, as employed in the instant examples to obtain a fast and tack-free cure. With respect to applicant's arguments regarding Example 3 in the instant specification, it is not clear that the difference in

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photoinitiator concentration, rather than other differences in the components of the composition or curing conditions, is what causes the difference in cure since no comparative data is provided.

The rejection of claims under 35 USC 112, first paragraph, is withdrawn in response to applicant's arguments for reconsideration. It is agreed that applicant specifically discloses that "all ranges of amounts are intended to include each and every point within the range" in paragraph [0011]. It is noted that there are no examples in the instant specification of compositions containing 0.1 to 0.49% photoinitiator and a mono-ethylenically unsaturated compound component (a) as set forth in the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenn et al (6,838,177). See the Abstract, column 1, lines 4-25, column 3, line 29, to column 4, line 62, column 5, lines 13-32, and the examples. Fenn et al teach compositions wherein the weight percents of components are within the instantly claimed ranges except for the amount of photoinitiator being from 1-8 % by weight. Fenn et al teach the same photoinitiators and photopolymerizable components as are set forth in the instant claims and discuss the same UV-B to UV-A ratio in radiation exposure as set forth in instant claim 18. Fenn et al also discuss the same UV-B to UV-A ratio in radiation exposure. Fenn et al teach exposure to UV radiation from 30 sec. to 10 min., preferably 1-3 minutes, for cure. Fenn et al teach that

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using less photoinitiator would result in compositions that “may be tacky” following exposure to UV radiation for 1-3 minutes, while the instant claims require a non-tacky surface after UVA radiation in 2 minutes. Fenn et al teach that any sticky uncured surface can be removed by wiping the surface with a solvent.

It would have been obvious to one skilled in the art at the time of the invention to employ an amount of photoinitiator less than 1% by weight, such as the 0.1 to 0.49% set forth in the instant claims, in the compositions disclosed by Fenn et al for the following reasons. Fenn et al teach using as little as 1% photoinitiator and also teach that using less photoinitiator may result in tackiness following exposure to UV radiation for 1-3 minutes. It would have been obvious to one skilled in the art at the time of the invention to select a particular photoinitiator and to use an amount of photoinitiator less than 1% in the compositions disclosed by Fenn et al. One of ordinary skill in the art at the time of the invention would have been motivated by an expectation of obtaining a non-tacky surface after 1-3 minutes of UV radiation. Fenn et al teach that using less photoinitiator would result in compositions that “may be tacky” following exposure to UV radiation for 1-3 minutes.

However, It would further have been obvious to one skilled in the art at the time of the invention to determine the intensity and duration of radiation exposure required to cure a particular composition containing a particular amount of photoinitiator to a non-tacky surface from the disclosure of Fenn et al. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining a coating having a non-tacky surface by varying such factors as kinds and amounts of monomers and oligomers, kinds and amounts of photoinitiator, time of light exposure or intensity of light exposure. It is known in the art of radiation curing that the amounts and kinds of photopolymerizable materials, amounts and kinds of photoinitiator and time and intensity of radiation exposure as well as coating thickness, among other factors, affect the cure time and level of cure. Therefore, one of ordinary skill in the art at the time of the invention would have been expected to have

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the expertise to determine the thickness of coating, amount of photoinitiator, as well as the kind, intensity and duration of radiation exposure required to cure a particular composition from the disclosure of Fenn et al to a non-tacky surface within 2 minutes. There is no comparative data of record to show that the use of 0.49 % by weight photoinitiator in compositions compared with the compositions containing 1.0% photoinitiator taught by Fenn et al provides unexpected results.

With respect to claim 11, as amended to recite “consisting essentially of the steps of applying and curing the composition, It would have been obvious to one skilled in the art at the time of the invention to omit the wiping step taught by Fenn et al when no uncured surface composition is present because the wiping would not be needed to remove any uncured composition. The reason is that what Fenn et al teach is that any sticky surface can preferably be removed by wiping with a volatile organic solvent, which teaching applies to the presence of uncured composition only. The description of the process in Fenn et al column 2, line 53, to column 3, line 12, further indicates that the wiping step is not an essential process step by not mentioning wiping. Additionally, applicant teaches that a wiping step can be used in the instantly disclosed process in the instant specification (page 7).

With respect to the recitation of cure to a non-tacky surface by exposure to sunlight in claim 1 or to natural outdoor light in claims 11 and 18, Fenn et al teach polymerization by exposure to UVA light but do not specifically mention polymerization by exposure to natural light conditions to provide UVA light. It would have been obvious to one skilled in the art at the time of the invention to substitute natural light exposure for UVA light exposure because natural light, such as sunlight, provides exposure to UVA radiation. One of ordinary skill in the art at the time of the invention would have been motivated by an expectation that the disclosed compositions would cure when exposed to natural light.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
8/19/2007

/Susan W Berman/
Primary Examiner
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